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In the port of New York/New Jersey, there are 4 million cubic meter of sediment, that have to be dredged each year from navigational channels. A large fraction of that is contaminated with PCBs, PAHs, pesticides etc., and only 25 % can be disposed off elsewhere, so there is a need for remediating a lot of material and putting it to some other use afterwards. Figure 1 shows contaminated sediment from Newton Creek, the border between Brooklyn and Queens, imaged with the X1-A scanning transmission x-ray microscope (STXM) near the carbon absorption edge. Current studies deal with analyzing the carbon contaminants in the contaminated sediment by C-XANES. This is compared to sediment, that underwent a cleaning procedure developed by Biogenesis Enterprises in order to find out about the effectivity of the cleaning procedure. *This work was supported by a fellowship from German Academic Exchange Service (DAAD), by the Office of Biological and Environmental Research, U.S. DOE under contract DE-FG02-89ER60858, the U.S. DOE Office of Basic Energy Sciences under Contract No. DE-AC02-98CH10886 and the U.S. EPA under Interagency Agreement No. DW89937890-01-0 with the U.S. DOE. We would like to thank Sue Wirick for her support at the beamline.

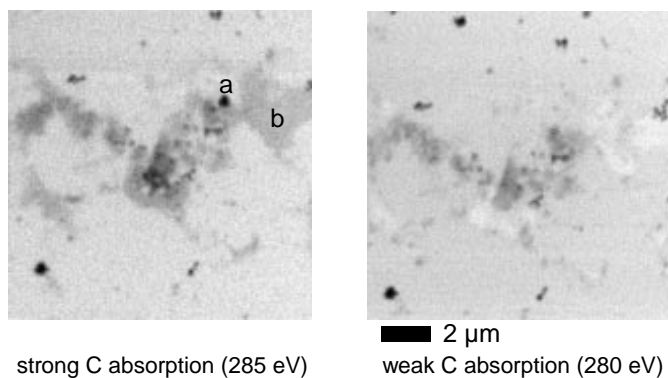


Figure 1. STXM images of contaminated sediment from NY harbor, taken at carbon edge photon energies. Absorption edge contrast allows to visualize carbonaceous phases, both in denser spots (a) as well as in more extended liquid phases (b) in the sample.